1. Number of pages. 204
2. Date of repair 12-1-37
3. Initials of Reference

M.R.O. 1—32 400—23-11-30

MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

Cons. 19-5-57

G.O. No. 925 — Press Mis.

9-10

Dated 14 — 5 — 1857

Not to be folded or roughly handled

No. 9. Read the following letter from Colonel C. E. FABER, Chief Engineer ; to H. FORBES, Esq., Acting Secretary to Government, dated 23rd March 1857, No. 11211.

SIR,

I have the honor, to forward for the consideration of Government, a letter No. 28, dated 3rd March from the District Engineer of South Arcot, on the subject of the increased costs of bridges constructed, and to be constructed, over four rivers, on the road from Tindevanum to Trinomally.

2. The District Engineer states of two of these bridges, that they have been completed, and that the amounts estimated and expended, were as follows.

	Estimated.	Expenditure.
Bridge over the Tondyaur...	1636 11 5	2187 2 0
Do. over the Toorinjeelaur... ...	1308 9 2	1688 14 9
	2945 4 7	3876 0 9

The Expenditure on these two bridges, exceeding the sum of the two Estimates, by Rupees 930-12-2.

3. The original Estimates for these works, appear to have been prepared without sufficient attention to details, the bricks in Chunam work for the piers, was entered together with that for the arches under one heading, and but one rate, and that a low one was allowed for these different descriptions of work, no allowance was moreover made for plastering for which a separate item should always be entered in Estimates for bridges the item for bailing and excavating foundations, and raising approaches, was also too low, and the same mistake of including several works under one item, was here again made.

4. These remarks are illustrated by the accompanying Comparative Statement shewing the original Estimate for the third or Ginjee bridge, by the side of that which ought to have been prepared, and submitted previous to the commencement of the work, for completing which the District Engineer now submits a supplementary Estimate amounting to Rupees (3,600) three thousand, six hundred.

5. The fourth bridge, is across the Veeragauntty, the Estimate for which will not it appears be exceeded.

6. I have now to recommend, that the District Engineer be allowed to complete the Ginjee bridge, at an additional expence of Rupees (3,600) three thousand, and six hundred and to request the sanction of Government for the same.

7. The additional amount of Rupees 930-12-2, expended on the Tondiyaur, and Toorinjeelaur bridges, also requires the Sanction of Government for the reasons stated, the cost of these works is undoubtedly moderate, and it is to be regretted that the errors in the original Estimate, should have occurred as they tend to make it appear, that the bridges are expensive ones.

Sanctioned by Government in Extract Minutes Consultation No. 91, dated 24th February 1855.

8. It may be as well that I state j
original Estimates for these bridges w
late Board of Works and not through th

Statement shewing the difference between Original and Revised Estimates, for constructing the bridge over the Gingee River on the road from Tindivanum to Trinomally.

Original Estimate.		Rs.	A.	P.		Revised Estimate.		Rs.	A.	P.		Amount.			
51,151¼	Cubic feet brick work in chunam including arch work	2	4	0	₱ C. yard.	40,924¼	Cubic feet, brick work in chunam, without arch work	2	4	0	₱ C. yard.	3,410	6	4	
212	Square yards plastering	1	8	0	₱ Sq. yard.	14,700	Cubic feet arch work	2	15	3	do.	1,607	13	0	
	Centering, constructing temporary dam, baling, scaffolding, foundations, &c.						Excavating foundations and filling approaches					800	0	0	
	Sundries						Temporary dam					260	0	0	
							Baling water					200	0	0	
							Scaffolding					300	0	0	
							5 Centerings and removing					1,250	0	0	
							Sundries					179	11	11	
												8,007	15	3	
							Deduct amount already sanctioned					4,407	15	3	
							Net amount to be sanctioned Company's Rupees					3,600	0	0	
												Amount.			
												Rs.	A.	P.	
												40,924	3	0	
												14,700	0	0	
												3,789	3	0	
												318	15	0	
												200	0	0	
												100	0	0	
												4,407	15	3	

Passed on to Government by the late Board of Revenue D. P. W. on the 22nd January 1855.
Sanctioned by Government, on the 24th February 1855.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

Central Office of P. W.,
Fort Saint George,
23rd March 1857.

No. 10. ORDER THEREON, No. 925; dated 14th May 1857.

With this letter, the Chief Engineer forwards one from the District Engineer of South Arcot on the subject of the undermentioned four bridges on the road from Tindivanum to Trinomally, constructed and in course of construction, under the sanction granted in Minutes of Consultation of the 24th February 1855, No. 91.

Bridge over the Tondyaur river.
Do. Toorinjeelaur do.
Do. Gingee do.
Do. Varaganutty do.

2. The first two of these bridges are reported to have been completed at an outlay exceeding the estimates by Rupees 931 as shewn in the margin; and this excess is stated to have been caused, mainly by the insufficiency of the rates, and other errors in the first estimates. The Chief Engineer applies for sanction for the additional expenditure; but this does not appear to be necessary now that the bridges have been completed; and that Officer will therefore be directed to submit bills for the works, when the necessary sanction will be accorded by the Government.

	Estimated cost.	Expenditure	Excess.
Tondyaur bridge.....	1,637	2,187	550
Toorinjeelaur do.....	1,308	1,689	381
Total Rs.	2,945	3,876	931

3. The defects pointed out in the two estimates above noticed, are stated to exist in a greater degree in that for the third or Gingee bridge; and the Chief Engineer illustrates the same by a Comparative Statement, shewing the estimate at first submitted for the work, and that which ought to have been prepared. The latter amounts to Rupees 8,008, from which being deducted Rupees 4,408 the amount formerly sanctioned, there remains a sum of Rupees 3,600 for which sanction is now solicited in view to the completion of the bridge.

4. The estimates in question are reported to have been prepared by Lieutenant Hessey, and were laid before* Government by the late Board of Public Works, and the Right Honorable the Governor in Council must express his surprize that the errors now pointed out were not detected in the Board's Office, more especially as the estimates appear to have been there subjected to revision. It would serve no useful purpose however at the present moment to call for explanation on the subject; and as the necessity for the additional expenditure of Rupees 3,600, required for completing the Gingee bridge, is obvious, application will be made to the Government of India for sanction to the outlay, the same being in excess of that which this Government can sanction under No. 1 of the Rules communicated with Colonel Baker's letter† of 1st August 1856.

* Letter dated 22nd January 1855.

†E. M. C. 28th Aug. 1856, No. 1540.

5. No orders are called for in respect to the fourth bridge across the Veeraganutty, as the work, it is stated, will be completed within the estimated amount.

6. In passing these orders, the attention of Government has been directed to a very inconvenient practice prevailing in the Department of Public Works, viz. that of sending up for sanction, estimates prepared two or three, or perhaps more years prior to their submission to Government. Such estimates, it need hardly be observed, cannot generally exhibit a correct approximation to the expenditure which the proposed work will involve. The wages of labor and the price of materials must be expected to vary, and estimates become useless if not acted on at the time they are made. The Government direct that, should occasion arise to make use of documents of this description for the future, they be invariably subjected to a careful revision, and altered if necessary, in accordance with actual current prices and the present rates of labor.

(Signed) H. FORBES,
Acting Secretary

Fort Saint George, Public Works Consultation of 19th May 1857.

No. 11. Ordered in consequence that the following letter be despatched.

From H. FORBES, Esq., Acting Secretary to the Government of Fort St. George to Lieutenant Colonel W. E. BAKER, Secretary to the Government of India, D. P. W., dated 14th May 1857, No. 926.

SIR,

The Budget of 1855-56, contained an item for four Bridges on the road from Tindivanum to Trinomally in the District of South Arcot viz., over the Tondyaur, Tooringeelaur, Gingee and Varaganutty rivers, estimated at Rupees 10,998, and sanctioned by this Government on the 24th February 1855.

2. The first two of the above bridges were estimated at Rupees 1,637 and 1,308 respectively, but the Chief Engineer has now reported that the works were completed at a cost of Rupees 2,187 and 1,689, or Rupees 931 in excess of the estimates. This excess is stated to have been caused mainly by insufficiency of the rates and other errors in the first estimates. Bills for the works have been called for, which on their receipt will be sanctioned by Government. The fourth bridge across the Varaganutty, it is stated, will be completed within the estimated amount.

3. It is only in respect to the third or Gingee bridge that this Government have now occasion to address the Government of India. The defects pointed out in the two estimates above noticed are stated to exist in a greater degree in that submitted for this bridge, and the Chief Engineer illustrates the same by a comparative statement, (a copy of which accompanies) shewing the estimate at first forwarded for the work, and that which ought to have been prepared. The latter amounts to Rupees 8,008, from which being deducted Rupees 4,408, the amount formerly sanctioned, there remains a sum of Rupees 3,600, for which the Chief Engineer, now solicits sanction, in view to the completion of the bridge.

4. The estimates referred to are reported to have been prepared by Lieutenant Hessey, and were laid before Government by the late Board of Public Works, in whose office the errors now pointed out ought certainly to have been detected. It would serve no useful purpose however at the present moment to call for explanation on the subject, and as the necessity for the additional expenditure of Rupees 3,600 required for completing the Gingee bridge is obvious, I am directed to solicit the early sanction of the Government of India to the outlay, the same being in excess of that which this Government can sanction, under No. I. of the Rules communicated in your letter of the 1st August 1856, No. 3605.

Central Office
Fort St. George
23rd March 1857.

No. 1121

From

The Chief Engineer

To

The Secretary to Govt. P.W.D.

Sir,

Public

Bridges on road from Tindivanum to Trinomaly

I have the honor to forward for the consideration of Government a letter No. 28 dated 3d. March, from the District Engineer of South Arcot, on the subject of the increased costs of bridges constructed and to be constructed over four rivers on the road from Tindevanum to Trinomally.

2. The District Engineer states of two of these bridges, that they have been completed, and that the amounts estimated and expended, were as follows.-

	Estimate	Expended
Bridge over the Tondyaur	1636-11-5	2187-2-2
Do over the Tooringeelaur	1308-9-2	1688-14-9
	2945-4-7	3876--9

The Expenditure on these two bridges, exceeding the sum of the two Estimates, by Rupees 930-14-2-

3. The original Estimates for these works, appear to have been prepared without sufficient attention to details:- the brick in Chinam work for the piers, was

entered

united together with that for the arches under one heading, and but one rate, and that a low one was allowed for these different descriptions of work, - no allowance was moreover made for plastering for which a separate item should always be entered in Estimates for bridges. - the item for taking & excavating foundations, and raising approaches, was also too low, and the same mistake of including several works under one item, were here again made.

4. These remarks are illustrated by the accompanying Comparative Statement shewing the original Estimate for the third or Gingee bridge by the side of that which ought to have been prepared, and submitted previous to the commencement of the work, for completing which the District Engineer now submits a supplementary Estimate amounting to Rupees 3600/ three thousand, six hundred. -

5. The fourth bridge, is across the Veeravanutty, the Estimate for which will not it appears be exceeded. -

6. I have now to recommend, that the District Engineer be allowed to complete the Gingee bridges at an additional expence of Rupees 3.600/ three thousand, and six hundred, and to request the sanction of Government for the same. -

7. The additional amount of Rupees

930

930-12-2, expended on the Tondiyanur, and Tiroonjeelanur bridges, also requires the Sanction of Government for the reasons stated, the cost of these works is undoubtedly moderate, and it is to be regretted that the errors in the original Estimate, should have occurred, as they tend to make it appear, that the bridges are expensive ones. -

8. It may be as well that I state in conclusion, that the original Estimates for these bridges were sent in through the late Board of Works and not through the Central Office. -

I have the honor to be
Sir
Your most obdt Servt
A. Taylor Colonel
Chief Engr

Sanctioned by Govt in Pl. Cons. No 91 of 26th Feby 55.

Fort St. George
23 March 1857.

To
The Secy to Govt
P.W.D.

Lt Williams

Public. [roads] [New Work]

Abstract of Estimate No. of 185 .15

Road No.

District. South Arcot.

Work Constructing Bridge over the Guiyee River on the road from Tindivanum to Trinomally 5 arches each 48 ft span.

Quantities	Description of Work	Rate Rs.	As.	P.	Amount Rupees	Amount for each part Rupees
C. Yds Fee't						
40924	Cubic ft of Brick in Chunam ft	-	1	4	3410	
14700	——— of 5 Arches ———	-	1	9	1608	
	Excavating foundation on do filling approaches				800	
	Temporary dam				260	
	Baling water				200	
	Scaffolding				300	
	5 Centring and removing				1250	
	Sundries				180	
						8008
	Deduct amount already sanctioned					4408
					Total Net Amount to be sanctioned Rupees	3600

Central Office
Fort St. George
23 Jan

Lieut Colonel
Engineers D. P. W.

For Orders. 61

Public Works Department No 590-

From the Chief Engineer 23d March/57

I think sanction may be given - but I had point out a practice - which is becoming establd. given up - that of sending up estimates made here & there & perhaps more than - before the work is sanctioned - thereby the Examination of the Report of it was probably the first to

Enclosure.

In a Letter

From

The Chief Engineer
D. P. W.

To

The Secretary to Govt
D. P. W.

Dated. 23d March/57

Received P.W. 590/57

No 11211

Abstract Estimate of the Expense of constructing a Bridge over the Gingee river on the road from Tindivanum to Trinomaly 5 arches each 48 feet span in the District of South Arcot Anntg. Rs 3600 — — —

prevent us help this - but such estimates
should for the future be always made
to bring them in accordance
with actual prices - thus make
up deficits =

P.W.D.

No. 925 10

Extract from the Minutes of Consultation
Under date the 14th May, 1857.

Read the following
Letter from the Chief Engineer

to Government 23rd March 1857 No 1121/K

With this letter the
Chief-Engineer forwards a letter
from the District Engineer
of South Arcot on the subject
of the undermentioned four
Bridges on the road from
Villeveram to Trinomally,
constructed and the causes of
construction, under the sanction
granted by the Minutes of Consul-
tation of the 21st February 1855
No 91

Bridges over the Gandyaur river
do — do — Toorinjeluar do
do — do — Cungee — do
do — do — nully — do

Tho

2. The first two of these bridges are reported to have been completed at an outlay exceeding the Estimates by Rupees 931 as shewn in the margin, and this excess is stated to have been caused mainly by the insufficiency of the rates, and other errors in the first Estimates. The Chief Engineer applies for sanction for this additional expenditure; but this does not appear to be necessary now that the bridges have been completed; and that officer will therefore be directed to submit bills for the works, when the necessary sanction will be recorded by the Government.

	Estimated Cost.	Expenditure.	Excess.
Soudyaur bridge	1637.	2187.	550.
Seringelaur do.	1308.	1689.	381.
	2945.	3876.	931.

3 The defects pointed out in the two Estimates above are stated to

* Letter dy 22d Jany 1835

to exist in a greater degree in that for the third or Gingee bridge; and the Chief Engineer illustrates the same by a comparative statement shewing the Estimate at first submitted for the work and that which ought to have been prefixed. The latter amounts to Rupees 8008, from which being deducted Rupees 4408 the amount formerly sanctioned there remains a sum of Rupees 3600 for which sanction is now solicited in addition to the completion of the bridge.

4 The Estimates in question are reported to have been prepared by Lieut Hessey, and were laid before the late Board

Board of Public Works, and the Right Honorable the Governor in Council must express his surprize that the errors now pointed out were not detected in the Board's office; more especially as the Estimates in question have been three times subjected to revision. It would serve no useful purpose however at the present moment to call for explanation on the subject; and as the necessity for the additional expenditure of Rupees 8,600, required for completing the Ginjee bridge, is obvious, application will be made to the Government of India for sanction to the outlay, the same being in excess of that which this Government can sanction under the Rules, communicated

* E. M. C. 28th Augt. 1856 No. 1340.

communicated with Colonel Baker's letter of 1st August 1856.

5 No orders are called for in respect to the fourth bridge across the Veeraganetty, as the work, it is stated, will be completed within the estimated amount.

6 In passing these orders, the attention of Government has been directed to a very inconvenient practice prevailing in the Department of Public Works viz. that of sending up for sanction, Estimates prepared two or three, or perhaps more years prior to their submission to Government. Such Estimates, it need hardly be observed, cannot generally exhibit a correct appropriation to the expenditure which the proposed work will

will involve. The wages of labor and the price of materials must be effected to vary, and estimates become useless if not acted on at the time they are made. The Government direct that, should occasion arise to make use of documents of this description for the future, they be invariably subjected to a careful revision, and altered if necessary, in accordance with actual current prices and the present rates of labor.

Ordered that the following letter be despatched.

To

Lieut. Colt W. C. Baker

Secy to the Govt of India &c &c &c.

(Here enter 14 May 1857 / No 925)

A Copy to the Chief Engr with Sketch. Dispatch.

8

Cons: 27th February/55 № 12 vig

Public Works 1857 Deptt.
D/to Cons: 19th May.

№ 925.

Extract Mins of Cons:
D/14th May 57.

From the Government of India
D/28th May/57 C. № 1201
Cons: 16 June

Forwarding orders on a letter from the District Engr. of South Arcot relative to certain bridges on the road from Tindivanum to Trinomelly.

№ 9 to 11

C 4th May/57